## Section I. Claims

**IPTL** 

Please amend claims 15, 16 and 18; and cancel claims 2, 5, 6, 13 and 17, as set out in the complete listing of the claims below.

- 1. (Original) A vector for preparing a vaccine which contains one or more than two gene among pgs B, pgs C and pgs A encoding poly-χ-glutamate synthetase complex and an antigen protein gene of human papilloma virus.
- 2. (Cancelled)
- 3. (Original) The vector for preparing a vaccine according to claim 1, in which said antigen protein gene is one or more than two genes selected from a group comprising HPV E6 and HPV E7 antigen protein associated with a tumor induction.
- 4. (Previously amended) The vector for preparing a vaccine according to claim 1, in which pgs A gene encoding said poly-χ-glutamate synthetase complex is contained.
- 5. (Cancelled)
- 6. (Cancelled)
- 7. (Original) A Gram positive microbe which is transformed with the vector for preparing a vaccine of claim 1.
- 8. (Original) The microbe according to claim 7, in which said microbe is selected from a group comprising Bacillus, Lactobacillus, Lactococcus, Staphylococcus, Lysteria, Monocytogenesis, and Streptococcus.
- 9. (Previously amended) A vaccine for treating or preventing mucosal tumor, which contains as an effective component, microbes transformed with the vector of claim 1, expressing an antigen protein onto a cell surface, crude antigen proteins extract from said microbes or antigen proteins purified from said microbes.
- 10. (Original) The vaccine for treating or preventing mucosal tumor according to claim 9, which can be administered orally or be edible.

- 11. (Original) The vaccine for treating or preventing mucus tumor according to claim 9, which can be injected subcutaneously or peritoneally.
- 12. (Original) The vaccine for treating or preventing mucosal tumor according to claim 9, which can be sprayed to the nasal cavity.
- 13. (Cancelled)
- 14. (Original) The vector for preparing a vaccine according to claim 1, which has the genetic map as illustrated in Fig. 5 and is named as pHCE2LB: pgsBCA-HPV E7.
- 15. (Currently amended) A microbe which is transformed with [[a]] the vector selected from the group consisting of pHCE2LB: pgsA-HPV-L1 and pHCE2LB: pgsBCA-HPV-E7.
- 16. (Currently amended) The microbe according to claim 15, in which Lactobacillus of Salmonella-is used as a host cell.
- 17. (Cancelled)
- 18. (Currently amended) The Escherichia coli transformant <u>identified by which is transformed</u> with the vector of claim-13 (accession number: KCTC 10520 BP[[])].
- 19. (Previously amended) A vaccine for treating or preventing mucosal tumor which includes as an effective component, the microbe of claim 16 expressing an antigen protein onto a cell surface, crude antigen proteins extract from said microbe or antigen proteins purified from said microbe.
- 20. (Original) The vaccine for treating or preventing mucosal tumor according to claim 19, which can be administered orally or be edible.
- 21. (Original) The vaccine for treating or preventing mucosal tumor according to claim 19, which can be injected subcutaneously or peritoneally.
- 22. (Original) The vaccine for treating or preventing mucosal tumor according to claim 19, which can be sprayed to the nasal cavity.

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23. (Previously amended) A washing solution for a genital organ, which includes as an effective component, the microbe of claim 16 expressing an antigen protein onto a cell surface, crude antigen protein extract from said microbe or antigen proteins purified from said microbe.